Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of

Amendment of Part 97 of the	**)**	
Commission's Rules Governing the	**)**	**RM-10867**
Amateur Radio Service to	**)**	
Implement Changes to Article 25	**)**	
of the International Radio Regulations	**)**	
Adopted at the 2003 World	**)**	
Radiocommunication Conference	**)**	

To: The Commission

Comments of Nickolaus E. Leggett, N3NL
Amateur Radio Operator Extra Class

The following is a set of comments from Nickolaus E. Leggett, an amateur radio operator (Extra Class licensee – call sign N3NL), inventor (U.S. Patents # 3,280,929 and 3,280,930 and one electronics invention patent application pending), and a certified electronics technician (ISCET and NARTE). I also have a Master of Arts degree in Political Science from the Johns Hopkins University (May 1970).

My comments are directed at the petition to the Federal Communications Commission from the American Radio Relay League, Incorporated (ARRL). In its petition, the ARRL proposes a restructuring plan for amateur radio licenses. The ARRL petition represents inputs from a large set of active amateur radio operators.

Creating a New Novice Class License

The ARRL proposes a new Novice Class license that would allow amateur radio beginners the opportunity to operate on limited samples of the high frequency (short-wave) amateur radio bands and very high frequency (VHF) amateur radio bands. This is

an excellent proposal that would accomplish the integration of the new operator into the full range of amateur radio operations. In many ways the new Novice class of amateur radio license would be like the old Novice class that enabled newcomers to get on the air meeting and interacting with seasoned ham radio operators. I started out in amateur radio in the 1960s using a Novice Class license. This license was a reasonable challenge for a rank beginner and it allowed me to get on the air with a very simple low-power (25-Watt) transmitter. I communicated with many operators over a quite large geographic area and these operators introduced me to ham radio operating and they were very patient with my existing limited skills. I was a junior partner in the amateur radio experience and was able to see examples of good operating practices for short-wave communication.

The ARRL is trying to reestablish that Novice learning environment with this new Novice class license. However, in this new environment the Novice class would include voice transmissions as well as data mode transmissions so that the beginners can sample many modes that amateur radio offers. I know of several prospective hams that would benefit from having such Novice class privileges available. I suggest that the Commission approve some form of beginner's license like the Novice license proposed by the ARRL.

Novice Privileges

The operating privileges proposed for the Novice Class license (page 17 of the ARRL petition) are reasonable for a beginner. They provide a sample of what is available but they are limited enough that the new operator has an incentive to upgrade to a higher class of license.

The lower power limit proposed makes sense because the new operator is generally less skilled and knowledgeable than the higher class licensees are.

However, I do not see a reason to limit the Novices to 50 Watts on the 28 MHz band while they are allowed 100 Watts on the other high frequency bands. It would make more sense to have the same power limit of 100 Watts on all of the high frequency bands. This would allow the Novice to use the same transmitter or transceiver on all of the allocated high frequency bands for Novices.

The lower power limit on the VHF frequency bands (page 18) is reasonable because of the increased concern with radio frequency exposure in this frequency range.

Retaining Morse Code for the Extra Class License

I strongly support ARRL's proposal that 5 words per minute Morse code examinations be retained for the Extra Class license.

Morse code is quite useful for improvised communications during megadisasters such as Electromagnetic Pulse (EMP) attacks and very high-energy earthquakes. In addition, Morse code facilitates international communications with third-world nations and amateur radio operations by persons of limited means. Morse code equipment is generally much less costly than other modes of amateur radio communication.

Refer to **Appendix A** of this document for additional information on the value of Morse code in amateur radio communications and activity.

Higher Power for General Class and Extra Class Amateurs?

The ARRL proposes that the operating privileges for the General Class and the Extra Class remain the same. However, the Commission should consider increasing the power limit above the current 1500-Watt power limit. This increase in power might be

useful because of the increased radio noise introduced into the environment by Broadband over Power Lines (BPL) and new unlicensed wireless radio services. This increased noise will make it difficult in many situations to accomplish amateur radio communications over long distances. A higher power limit may partially overcome this new noisier radio environment. The Commission should examine this concept in balance with the problem of increased fundamental overload interference with consumer electronic equipment and the BPL devices.

Inhibiting Factor

Many potential amateur radio licensees will be deterred from entering amateur radio because they are not allowed to set up outdoor antennas. Almost all of the homeowner associations (HOAs) in the United States actively ban outdoor amateur radio antennas of any type. Even the very modest high frequency loop antennas demonstrated to the Chairman and Commissioners in September 2001, by the ARRL, are banned by the HOAs.

One could simply say that any prospective ham should move into a home not covered by a HOA. However, such a direct use of the marketplace is blocked by the common county laws that require all new developments to set up HOAs (and with them bans on amateur radio antennas). It is ironic to note that the former Soviet Union was more open minded about amateur radio antennas than the United States currently is.

In addition, youthful hams are not able to move their households into new antenna-friendly housing.

In view of these problems, the Commission should reconsider establishing limits on HOA prohibitions of outdoor amateur radio antennas. At the very least, modest loop

antennas and low profile VHF antennas should be allowed by Federal rules much like satellite TV antennas are now.

Migration Path for Legacy Licensees

The ARRL's proposed migration path for legacy licensees (Figure 1 on page 19) would enable the Commission to consolidate the no-longer-issued amateur radio license classes into a simple three-class system. This would help simplify the license hierarchy for the benefit of licensees and the Commission staff.

Thank You

I would like to thank the Commission staff for docketing and considering several petitions on amateur radio licensing, including this petition from the ARRL. I recognize that it takes considerable time and expense to conduct such an evaluation and the responsiveness of the Commission on this subject is greatly appreciated.

Suggested Actions

The Commission should approve the ARRL's proposed licensing system with the modification that I have suggested. In addition, the Commission should conduct independent Notice of Inquiry (NOI) proceedings on homeowner associations and amateur radio antennas and on a higher power limit for amateur radio operators.

Respectfully submitted,

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April 12, 2004

Appendix A

Reasons for a Continued Role for Morse Code in Amateur Radio

There are several reasons why the retention of some role for Morse Code in amateur radio serves the national interest and enhances the public service roles of amateur radio:

Morse Code equipment is more affordable for amateur radio operators in third-world nations than voice mode (single side band) amateur radio equipment is. Robust Morse Code operations by Americans encourage these operators to participate in world-wide amateur radio.

Morse Code with the standard Q signals can be understood by operators who speak different languages. This enhances international amateur radio communications.

American amateur radio operators of limited means can afford to build or purchase low-power Morse Code equipment for the fairly low price of $100 to $200 as compared to the much higher prices for single side band amateur radio equipment.

Morse Code is inherently narrow-band in nature allowing numerous amateur radio stations to share a given allocated band of frequencies.

Morse Code stations are quite simple, encouraging amateur operators to get involved in analyzing, designing, and building their own equipment as well as modifying existing equipment.

Morse Code is effective at low power levels allowing greater frequency reuse. I have operated on the high frequencies using one Watt of output power and Morse Code.

Morse Code is valuable during megadisasters or other extreme conditions when amateur operators must improvise their own transmitting equipment. Attorney Donald J. Schellhardt in comments in docket RM-10412 first introduced the concept of a megadisaster. Schellhardt defines a megadisaster as "A life-threatening disaster, either natural or man-made, of sufficient intensity and scale that it: (a) destroys and/or disables much, most, or all of the basic infrastructure and services over an area of at least 10,000 square miles, for a period of at least weeks or months; and (b) prevents or significantly restricts the flow of relief supplies and personnel, from areas which are not directly affected, for a period of at least two weeks." (Comments of April 21, 2002). In a megadisaster, the operator can easily be isolated on his own and have to improvise radio communications. In such a situation it is much easier to create a keyed radio oscillator or even a keyed radio noise source than it is to create a single side band or FM transmitter. In addition, Morse Code can be used with a light, whistle, or car horn to provide local communications.